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Computerized enrollment system project report.

Research Proposal · September 2024

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1. INTRODUCTION

1.1 ABOUT THE PROJECT

The project entitled **"COMPUTERIZED ENROLLMENT SYSTEM".** Every organization, whether big or small, has human resource challenges to overcome. Every organization has different employee management needs; therefore we design exclusive employee management systems that are adapted to your managerial requirements. This is designed to assist in strategic planning, and will help you ensure that your organization is equipped with the right level of human resources for your future goals.

Also, for those busy executive who are always on the go, our systems come with remote access features, which will allow you to manage your workforce anytime, at all times. These systems will ultimately allow you to better manage resources. One of the main features in employee management system is time tracking for employees.

Effective time tracking mechanism saves both time and money for these we know in any technical educational office, the manager of office used to spare lot of time even after the normal office hours either at home or office for preparation of daily/weekly report and other necessary record.

Now with the help of this system ,the manager has the information on his finger tips and can easily prepare a record based on their requirements apart from daily/weekly report. Finally, We can say that this system will not only automate the process but save the valuable time of the office manager, which can be well utilized by this institute. This will be an additional advantage and management of manpower based on their free time from his normal duty.

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1.3 SYSTEM SPECIFICATION

1.3.1 HARDWARE SPECIFICATION

MONITOR	:	LCD MONITOR 15” COLOR
PROCESSOR	:	INTEL ® ATOM ™ CPU D410 @1.6GHZ
HARD DISK	:	250 GB
MOUSE	:	OPTICAL MOUSE
KEYBOARD	:	104 KEYS
RAM	:	2 GB

1.3.2 SOFTWARE SPECIFICATION

Operating System	:	Windows XP
Front-end	:	Visual Basic 6.0
Back-end	:	Ms-Access

ABOUT VISUAL BASIC

Visual Basic 6.0 is the easiest and fastest way to create applications for Microsoft Windows. Visual Basic provides complete set of tools to simplify rapid application development both for the experienced professional and new Windows programmers.

In the name Visual Basic - the "Visual" part refers to the method used to create the Graphical User Interface (GUI). Unlike many languages require numerous lines of coding to describe the appearance and location of interface elements. Visual Basic provides pre-built objects that can be used to form the Graphical User Interface (GUI).

The "Basic" part refers to the BASIC language as its basic syntax of statements is retained by Visual Basic. But Visual Basic now contains several hundreds of statement/ functions, and keywords many of which relate directly to the Windows GUI.

Apart from this we can load multiple projects into the IDE - Integrated Development Environment and treated as one. For example, a standard project and an ActiveX project can be loaded at the same time. This saves tremendous amount of time for coding and debugging.

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Features of Visual Basic 6.0

Microsoft Visual Basic is the newest version of the popular programming language. With its feature, Visual Basic is even stronger contender in the application development arena than ever before.

- It makes use of Graphical User Interface (GUI) for creating robust and powerful application.
- It supports many useful tools that will help everything to be more productive.
- These include but are not limited to, projects forms, object templates, custom controls templates, custom controls, add-ins, and a database manager.
- This allows distributing the application through the internet.
- Further, Visual Basic sports a new development environment, modeled after the window explorer environment
- Develop robust stand-alone applications, games and utilities in less time than it takes in other languages.

ABOUT MS-ACCESS

Ms-Access is very useful for accessing the database to create records, deleting records, modifying records and useful for listing records. It is used as back end tool for the Visual Basic. A database server is the key to solving the problems of information management. In general, a server must relating manages a large amount a data in multi-user environment. So that, many users can concurrently access the same data.

All this must be accomplished while delivering high performance. A database server must also prevent unauthorized access provide efficient solution for failure recovery.

MS-Access is a Relational Database Management system for windows. A RDBMS stores and retrieve information based on relationships. That have been specified relationship exist almost everywhere in life. With Ms-Access, we can build relational database that stores related data in one place.

- Ms-Access provides a very easy-to-use graphical interface.
- Ms-Access utilizes that full potential of windows giving a visual outlook a data and information.

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- Ms-Access provides a WIZARD for almost everything.
- Ms-Access hides the nuances of storage format location and fetches information quickly.
- Ms-Access proves WYSIWYG effect for sophisticated reports and for generation.

Features of Ms-Access

MS Access is a powerful database management system and the user can create application that requires little or no programming.

- It supports GUI features and an entire programming language, Visual Basic Application which can be used to develop richer and more developed application.
- The first being that Access is a feature rich program that can handle any database related task the user has.
- The user can create places to store the user data build tools that make it easy to read and modify your database contents, and ask questions of the data. Access is a relational database, a database that stores information about related objects.

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2. SYSTEM STUDY

2.1 EXISTING SYSTEM

The study of the system deals with needed to carry out preliminary investigation. The study proposal should be produced by the user furniture shop and the study can be performed only of the existing system. Since it give the structure and functioning of the system.

The methods used in the system analysis were interviews, observation and discussion. The existing system is manual one. But user found out some problem in the existing system. There is no provision for maintain the staffs in the company. Moreover there is no provision for giving discount to customer while sales are made. Similarly there is no provision for giving commission while purchases are made.

2.1.1 Drawbacks of the Existing System

- There is no provision for giving discount while sales and purchases.
- There is chance for loss of record due to mishandling.
- There is possibility for error while updating details.
- There is no staff information.
- The time required to process data and generate the reports is very high.

2.2 PROPOSED SYSTEM

The basic for the proposed system is the recognition of the need for improving the existing system or procedure. The proposed system aims at overcoming the drawbacks of the existing system. The proposed system is coded and designed using the visual basic concept. The concept of visual basic helps in providing the better security and faster access to data stored in the database, of the proposed system.

Thus the proposed system maintains a huge database, which records all the details pertaining to customers and also keeps track of all the details which are necessary for the organization. The basis of the system lies in capturing and analyzing the information at various levels and effective decision making

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2.2.1 Features of the Proposed System

- Completely menu-driven & user-friendly.
- Provides faster and efficient information processing.
- Supports efficient data management.
- Highly flexible
- Valid and secure
- Provides timely information.

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3. SYSTEM DESIGN AND DEVELOPMENT

The design of the system is essentially a blue print, or plan for solution of the system to be developed. A part of the system or Subsystem of a whole of the system can itself be considered a system with its own complements.

3.1 FILE DESIGN

The file design is the last phase that indicates the final system and process of the final system. In the design phase of the project, the database tables, input screen design and output design etc. are designed.

- The database tables where designed by using all the necessary fields in compact manner.
- All the input screens in this system are user-friendly and understandable format. Also the sizes of all the screens are standardized.
- Icons designed in this system are brief, compact and self-explanatory. The icons are sharp and novice user can invoke the system.
- Reports generated here give the minute information, which helps the manager to take vital decisions.

The importance of software design can be stated with a single word “QUALITY”. Design is a lace where quality is fostered in Software Development. Design is the only way where their requirements are accurately translated into finished software product or system.

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3.2 INPUT DESIGN

Input design is the process of converting user-originated inputs to a computer- based format.

The system takes input from the users, processes it and Produces an output. Input design is link that ties the information system into the world of its users. The system should be users friendly to gain appropriate information to the user.

Forms for input design in this project are:

- Employee Details
- Employee Salary Details
- Employee Personal Details

3.3 OUTPUT DESIGN

Output design generally refers to the results and information that are integrated by the system for many end users. Output is the main reason for developing the system and the basis on which they evaluate the usefulness of the application

The objective of a system finds its shape in terms of output; Output of a system can face various forms. The most command are the reports, screen displays, printed forms, graphical, drawings etc. The basis Requirements of output are that, it should be accurate, timely and of content, medium and layout for its in tented purpose. External outputs are those whose destination will be outside the Organization. Interactive outputs are those, in which user uses in communicating directly with computer.

The reports given in this project are:

- Employee Report
- Salary Report

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3.4 DATABASE DESIGN

The Database Management System (DBMS) consists of a collection of interrelated data and a set of programs to access that data. The Collection of data usually referred to as database. The primary key goal of DBMS is to provide an environment that is both convenient and efficient to use in retrieving and storing data information.

The term database design can be used to describe many different parts of the design of an overall database system. Principally, and most correctly, it can be thought of as the logical design of the base data structures used to store the data. In the relational model these are the tables and views. In an object database the entities and relationships map directly to object classes and named relationships. However, the term database design could also be used to apply to the overall process of designing, not just the base data structures, but also the forms and queries used as part of the overall database application within the database management system (DBMS).

The process of doing database design generally consists of a number of steps which will be carried out by the database designer. Usually, the designer must:

3.5 SYSTEM DEVELOPMENT

A system development project encompasses all the activities undertaken from the time at which a potential requirement is identified until the resulting system is fully implemented and accepted by the end user. The process can involve many stages over a long period. The following section highlights some fundamental issues to be considered, outlines the main stages in development and procuring new systems, and indicates when and how the auditor should be involved.

An information system acquired today must not only satisfy present business needs; it must also be flexible and capable of being enhanced to meet changing circumstances well into the future. Thus a pre-requisite to the introduction of a new system is for management to identify and understand their organization's mission and its related information needs. Writing this down helps to ensure common understanding and direction, and provides a yardstick against which achievement can be measured.

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The first step in which the analyst must undertake is to understand the current system by gathering all information about it. The required data are collected by several methods like:

- Study of the current manuals
- Observation of the functioning
- Sampling and Research

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3.5.1 MODULE SPECIFICATION

Computerized Enrollment System is developed in VB programming language. This system helps in managing salary details of employees by dividing entire system in to two modules. Enrollment management system or accounting system can also be implemented in java platform.

Enrollment Accounting Module description:

Admin Module: Admin module is the super user for this application who can add, delete and modify employee details. Divide employees based on their cadre using employee setting GUI.

Admin is provided with a user friendly GUI for performing these functions.

Add, delete and modify GUI has following fields

- Employee code
- First Name
- Last Name
- Designation
- Address
- Contact Number

Enrollment Employee Setting GUI has following fields

- Employee type
- Basic salary
- Check percentage for DA allowances, HRA allowances, WA Allowances,
- Check percentage for GPF Deduction, IT Deduction, GIS Deduction PF deduction, LIC deduction.

Employee Module: Employee module is for employees for checking details of salary and cuttings for that month and he can also view previous month's details.

Employee GUI has following fields

- Employee Code
- Salary details
- DA, HRA, WA allowance percentages

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- GPF, IT, GIS, PF deduction percentages

Using Enrollment accounting system employee and admin can generate pay slip.

Accounting System Employee Slip GUI has following fields

- Employee code
- For the month
- Employee name
- Designation
- Date, salary slip, basic salary, allowances, deductions

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4. TESTING & IMPLEMENTATION

SYSTEM TESTING

All the modules of this system were successfully implemented and testing of the project completed using test data as well as real data collected from the parking place. All the reports and the screens are tested for their validity and values in the data tables are checked for their correctness and consistency. After successful testing of the system, it was ready for implementation.

Various types of testing:

- Unit testing
- Integration testing
- Validation testing
- Whitebox testing
- Blackbox testing

Unit Testing

In this testing, we have to test the programs making up the system. The software units in a system are the modules and routines that are assembled and integrated to perform a specific function. Unit testing focuses first on the modules, independently of one another, to locate errors. This enables, to detect errors in coding and logic that are contained within that module alone.

This testing was carried out during programming stage itself. In the testing step, each module is found to be working satisfactory as regards to the expected output from the module.

Integration Testing

The constituents of the entire project are split into individual module and were linked together, and until the maximum level for each transaction type was reach. This modules have its individual programs, these program were tested individually. At last all these programs were combined together.

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The candidate system has passed the test and the system implementation is undergoing. This was done by testing and comparing the actual output with the expected output. When there was discrepancy, the sequence of instructions was traced to determine the problem.

Validation Testing

At the culmination of integration testing, software is assembled as a package; interface errors have been uncovered and corrected and a final series tests- validation test begin. Validation testing can be defined in many ways, but a simple definition is that validation succeeds when the software functions in a manner that can be reasonably expected by the customer. After validation test has been conducted, one of two possible conditions exists.

The function or performance's characteristics conform to specification are expected. A derivation from specification is uncovered and a deficiency list is created. Proposed system under consideration has been tested by using validation testing and found to be working satisfactorily.

Whitebox Testing

It is a test case design method that uses the control structure of the procedural design to derive test cases. Using white box test methods.

- Guarantee that all independent paths within a module have been exercised at least one.
- Exercise all logical decisions on their true and false sides.
- Execute all loops at their boundaries and within their operational bounds.

Blackbox Testing

- It is not an alternative to white box techniques.
- It is attempts to find errors in the following categories.
- Incorrect or missing functions
- Interface errors
- Errors in data as structures or external database access
- Performance errors**.**

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SYSTEM IMPLEMENTATION

Implementation is the stage of the project when the theoretical design is turned into a working system. It can be considered to be the most critical stage in achieving a successful new system and in giving the user confidence that the new system will work and be effective.

Every developed system must be implementing to fulfill the mode of development. There are many software implementation methods. After designing of the system is over, the user was consulted with a demonstration. This is done to find if any logical error occur in the system.

A crucial phase in the system life cycle is the successful implementation of the new candidate system design. Implementation simply means converting a new system design into operational one. This involves creating compatible, training the operating user, and installing the necessary hardware and terminals before the system is up running.

Therefore implementation is the process of converting a new or revised system design into an operational one. Thus during this stage the theoretical design is turned into a working system. If the implementation stage is not carefully planned and controlled, it can cause chaos. Generally, there are three types of implementation as follows :

- Implementation of a computer system to replace a manual system.
- Implementation of a new computer system to replace an existing one.
- Implementation of a modified application to replace the existing one using the same existing system.

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5. CONCLUSION & SUGGESTIONS

The developed system is flexible and changes can be made whenever necessary speed and changes and accuracy are enhanced computer outputs are obtained more quickly in desired formats.

The project entitle **"COMPUTERIZED ENROLLMENT SYSTEM"** of describe so far has designed, tested and documented completely. The package has been developed to overcome the problems with the existing system. The software produced is so useful that the system efficiency provides the required information at any time, regarding car parking centre.

All the transactions of the engineers details are computerized, which can be upgraded time to time as per requirements of the changing time.

The software created is attractive and user-friendly. It is highly interactive too. The software appears more flexible, which is completely menu-driven, it gives advantage, as it needs less typing by the user. It maintains data consistency. The system reduces workload and produces adequate and timely information as and when required.

SUGGESTIONS

Any project which is done is having room for development. It can be enhanced with various options according to the customer satisfaction in future.

In order to successfully migrate from one information system to another, it is critical to perform a thorough comparison of data fields and functions between the two systems to identify the known differences. Modern software is written in high level programming languages and is usually designed by the manufacturer to run on a variety of platforms, providing "portability." Older systems may provide vital business needs, but they may not be portable because they are tied to their specific hardware and operating systems. Additionally, some of these vital business needs may not be met by standard commercial, off-the-shelf packages, even after customization.

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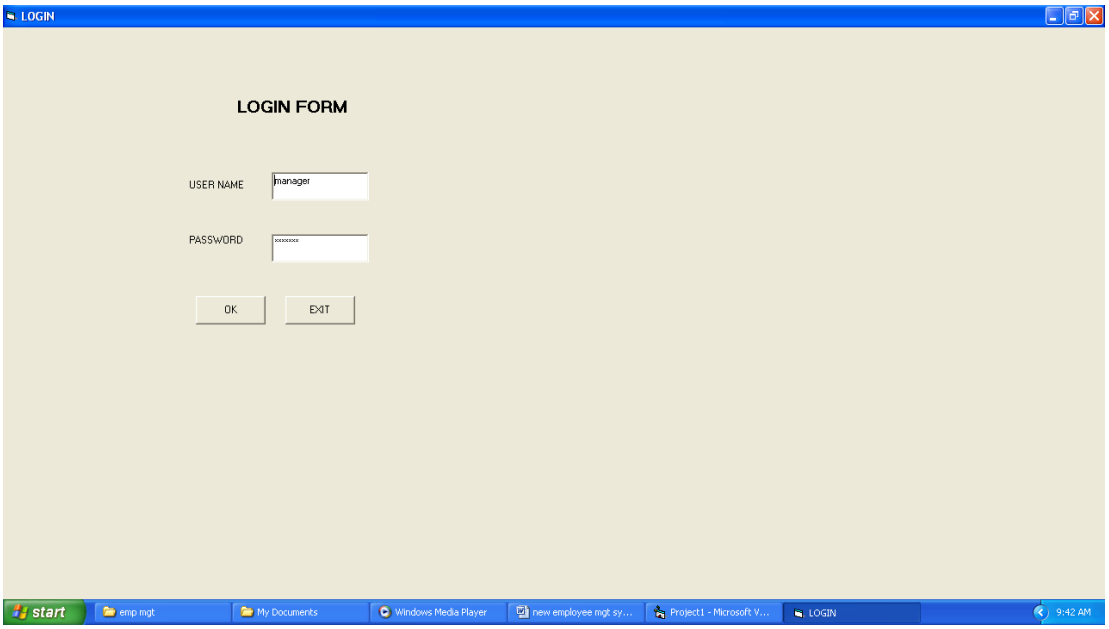

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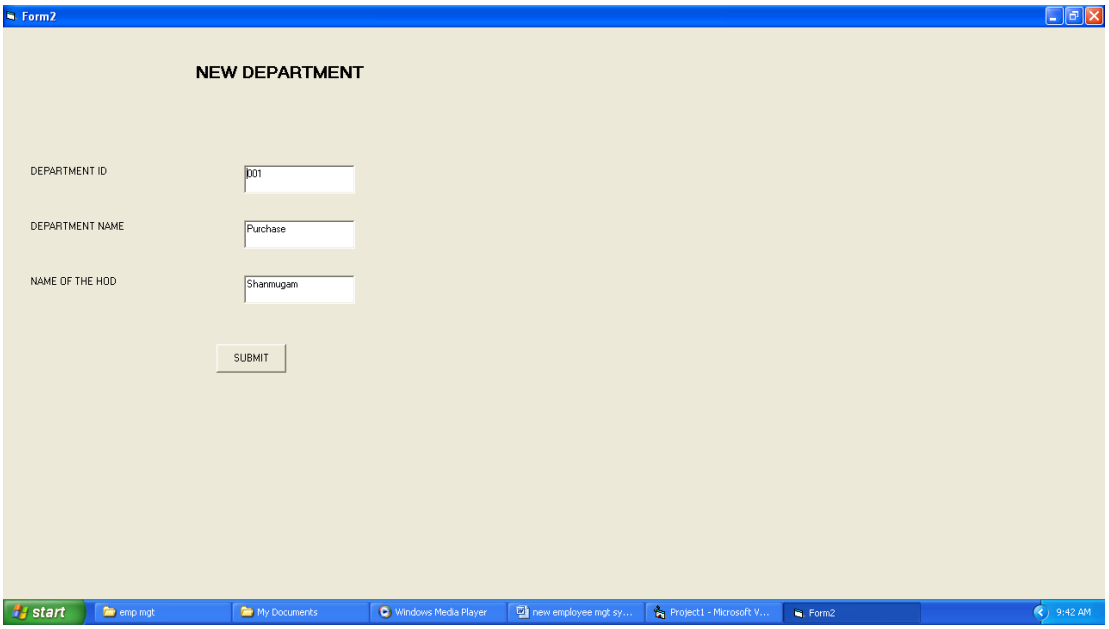

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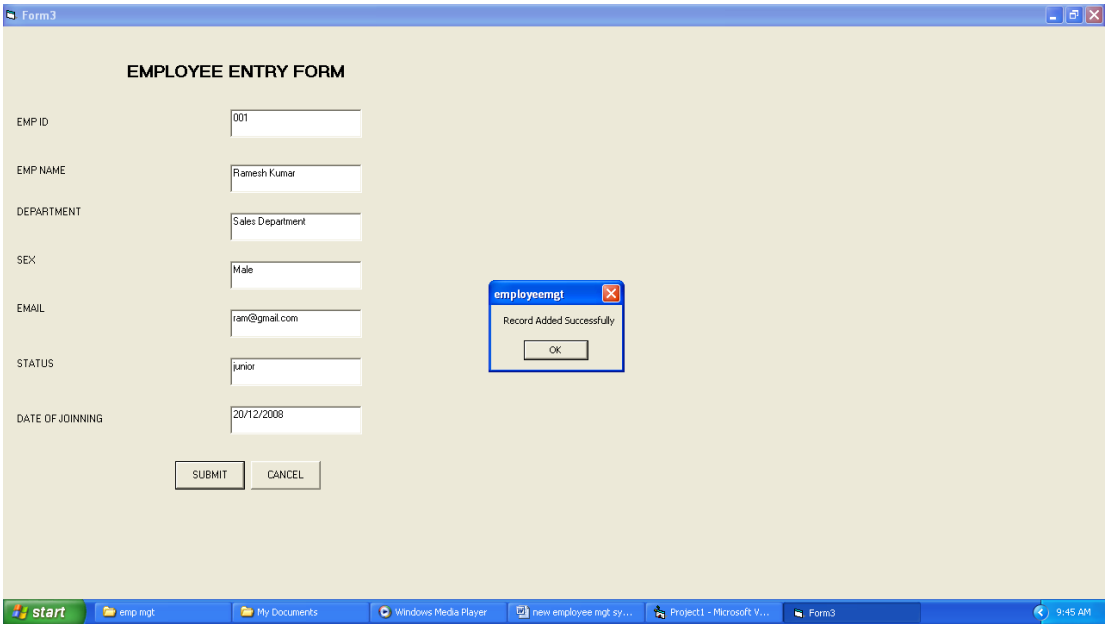

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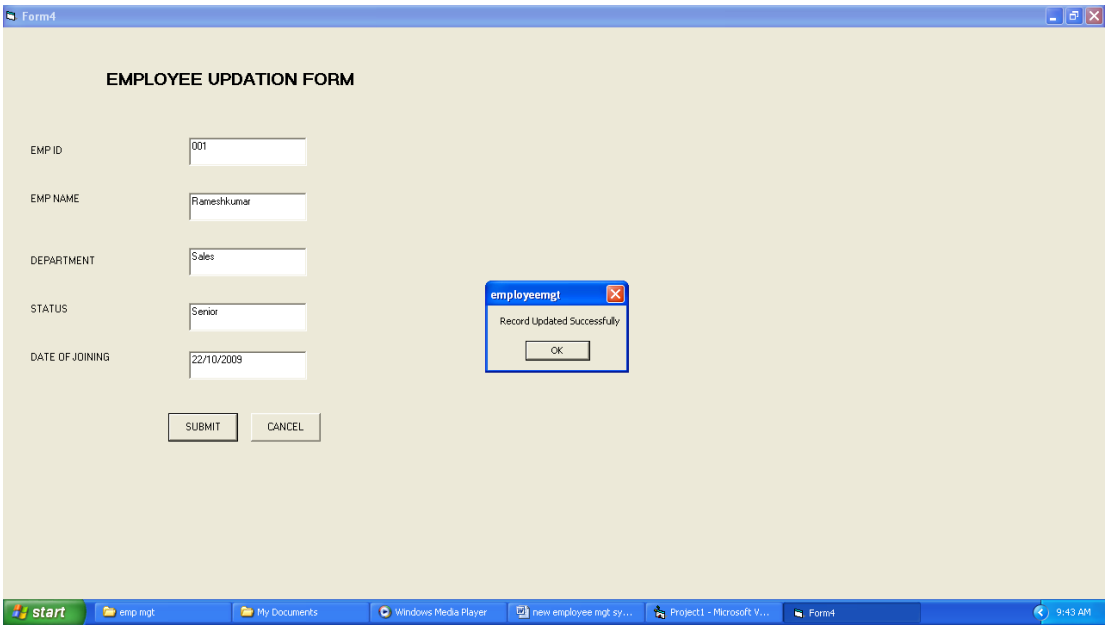

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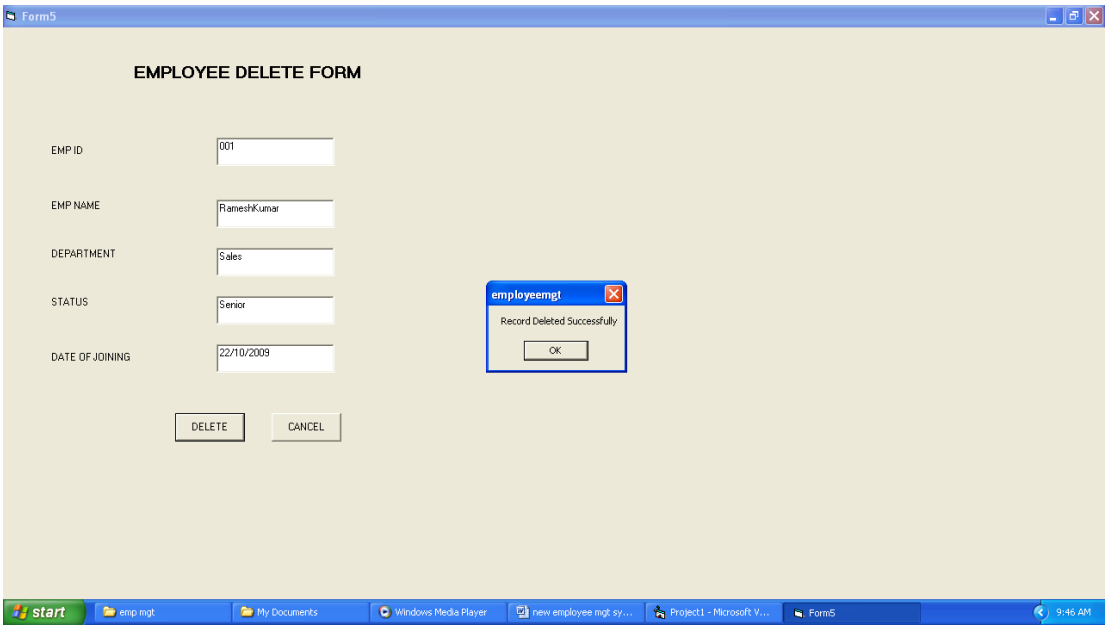

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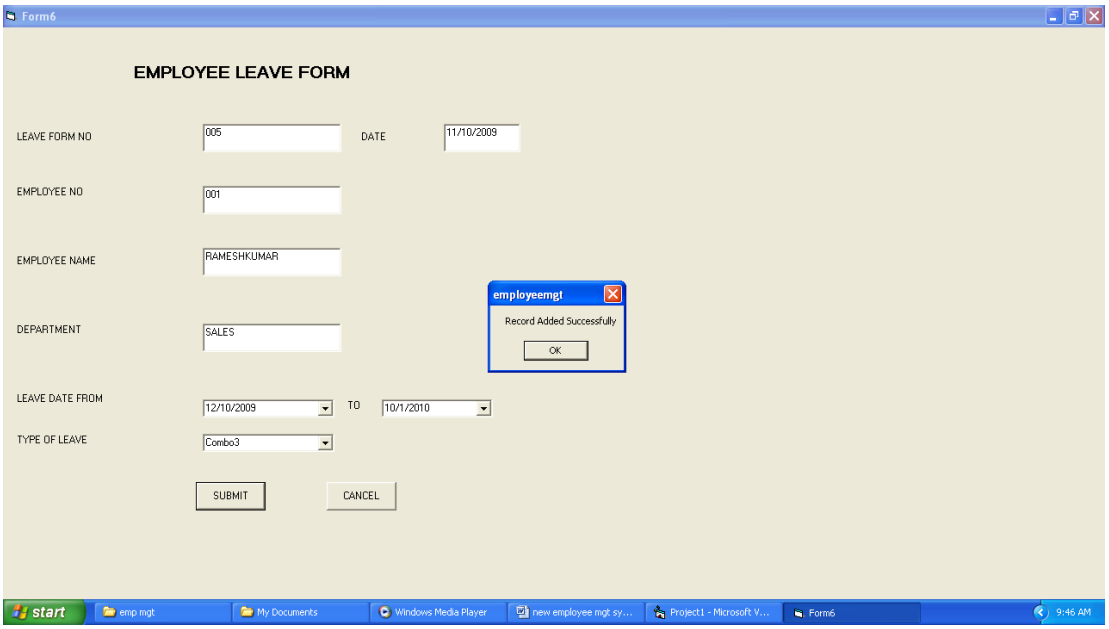

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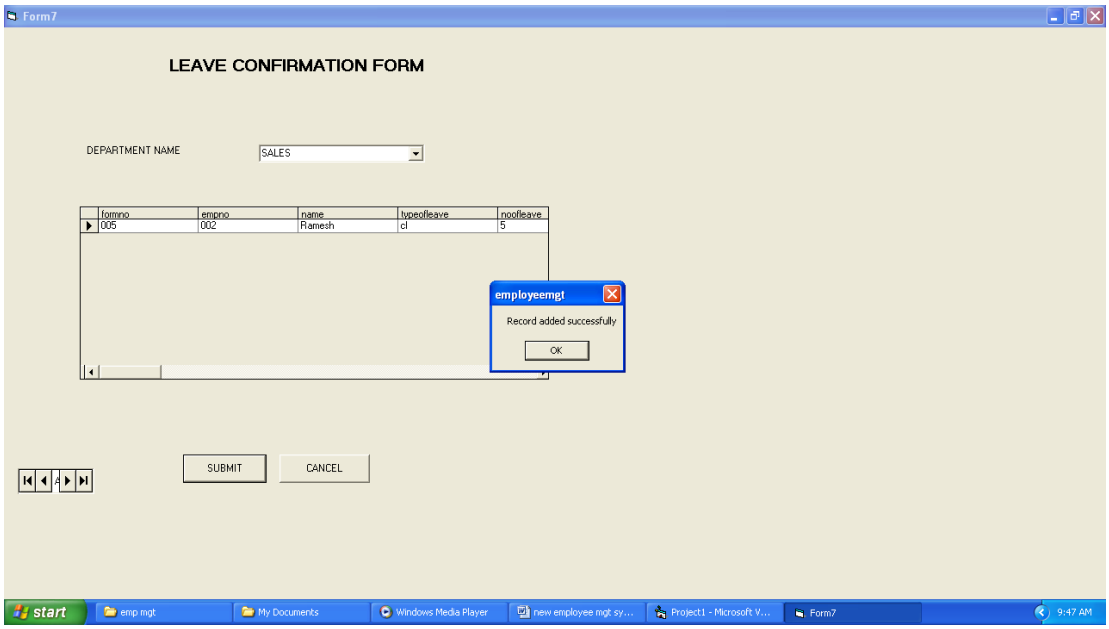

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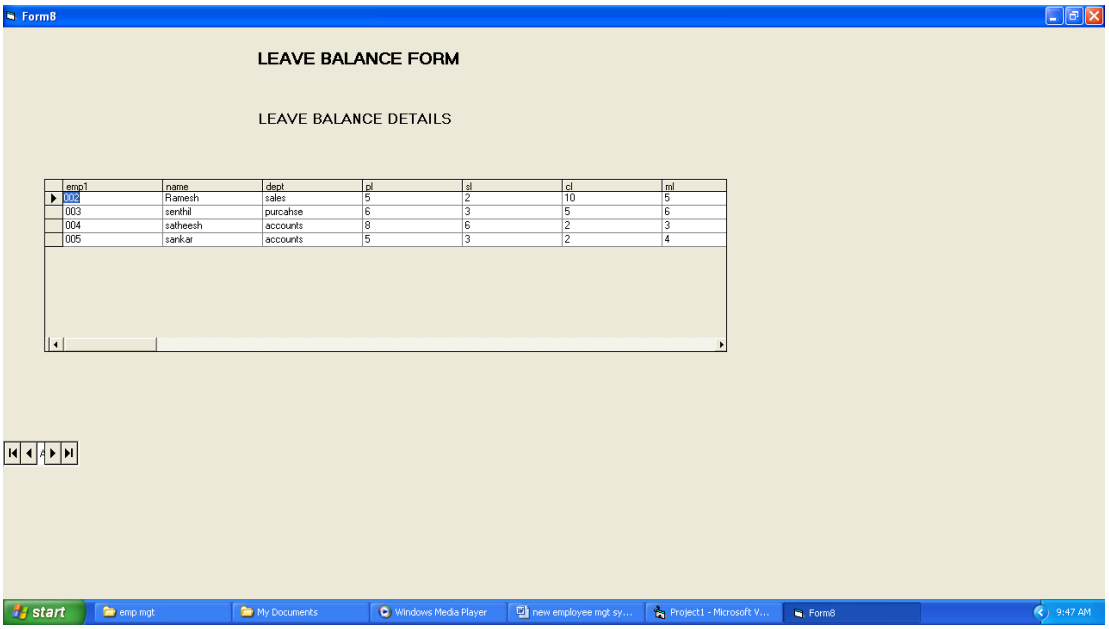

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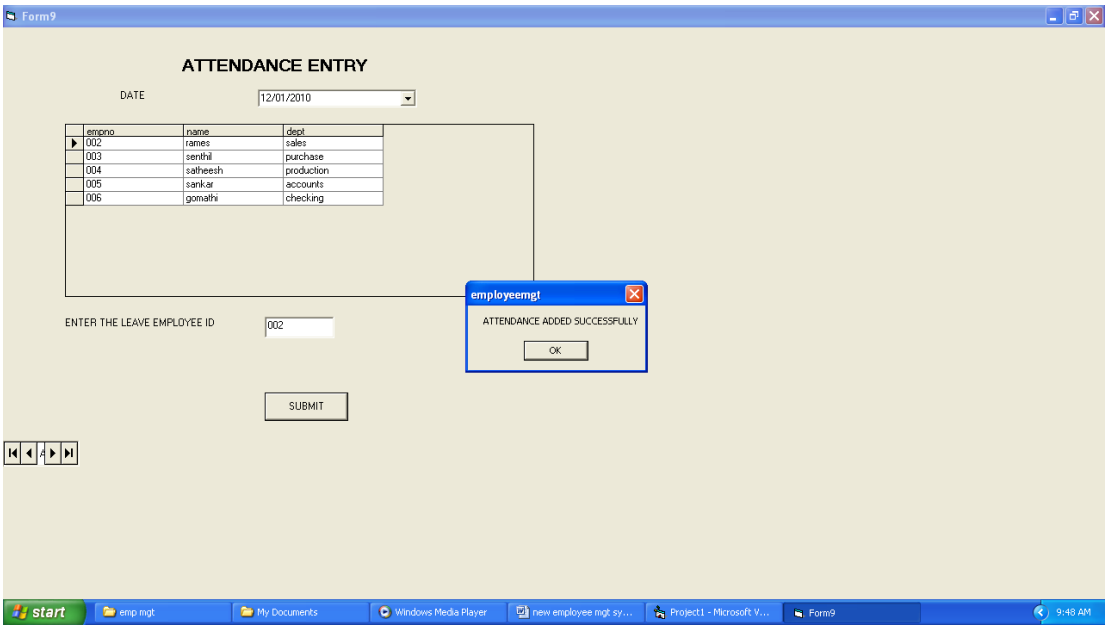

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DATA FLOW DIAGRAM

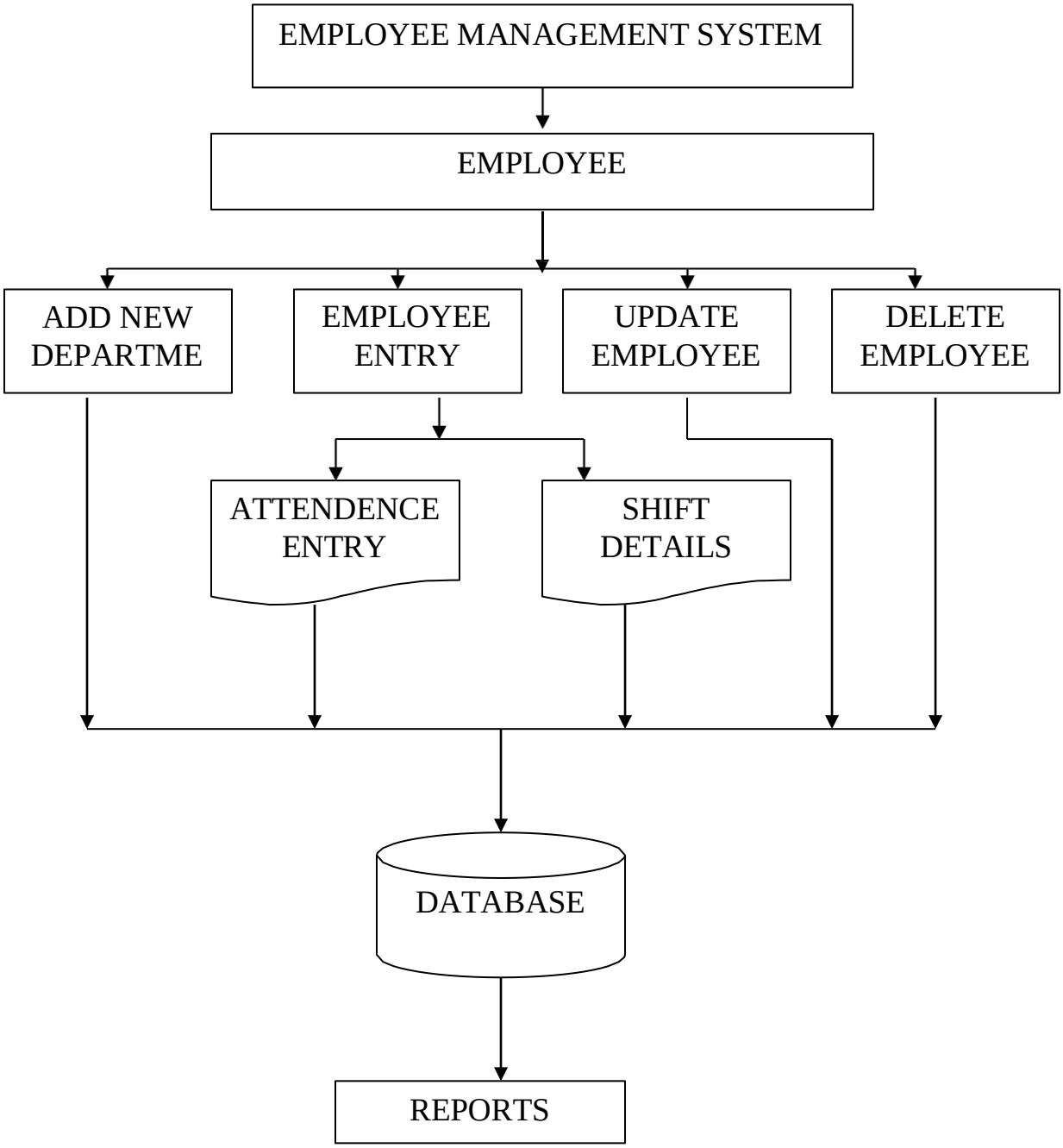

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Table Name: AddEmployee

Field Name	Field Type	Field Size	Description
Empid	Number	10	Employee id
Empname	Text	20	Employee Name
Department	Text	20	Department
Sex	Text	10	Sex
E-mail	Text	20	Email-id
Status	text	10	Status
Date	Date		Date of joining

Table Name: UpdateEmployee

Field Name	Field Type	Field Size	Description
Empid	Number	10	Employee id
EmpName	Text	20	Employee Name
Department	Text	10	Department
Status	text	10	Status
Date of joining	Date		Date of joining

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Table Name: DeletingEmployee

Field Name	Field Type	Field Size	Description
Emp id	Number	10	Employee id
Emp Name	Text	20	Employee Name
Department	Text	10	Department
Status	Text	5	Status
Date of joining	Date		Date of joining

Table Name: LeaveForm

Field Name	Field Type	Field Size	Description
Leave from no	Number	5	
Empno	Number	10	Employee no
Emp Name	Text	20	Employee Name
Department	Text	10	Department
Leave Date from	Number	5	
Type of leave	Text	10	Type of leave
Date	Date	8	Date

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